

7/16/02

WHAT IS CLAIMED IS:

1. A radio modem terminal for mobile communication, comprising:
a body comprising a functional unit which provides voice communication capability;
a power supply unit rotatably connected to a first side of the body; and
a display unit rotatably connected to the first side of the body, wherein the display unit is connected between the power supply unit and the body.
2. The terminal of claim 1, further comprising a hinge structure which rotatably connects the body, power supply unit, and display unit, said hinge structure forming a foldable mobile communication device.
3. The terminal of claim 1, wherein the body comprises a standard PCMCIA TYPE 2 PC card.
4. The terminal of claim 1, wherein the body further comprises a connector which connects the radio modem terminal to a notebook computer, said connector coupled to a second side of the body.
5. The terminal of claim 4, wherein an operation mode of the radio modem terminal is based on a connection between the radio modem terminal and the notebook computer.

6. The terminal of claim 5, wherein the operation mode comprises:

a PC card mode if the radio modem terminal is connected to a notebook computer;

and

a mobile communication terminal mode with voice communication capability if the radio modem terminal is not connected to a notebook computer.

7. The terminal of claim 1, wherein the display unit comprises a liquid crystal display (LCD) with a touch pad attached thereto for receiving information from a user.

8. A radio modem terminal for a mobile communication, comprising:

an RF unit which processes an RF input signal;

a user interface which serves as an interface for signals transmitted to and received from a display unit;

a memory unit which stores operating data;

an audio interface unit which processes a voice signal;

a PCMCIA interface unit which serves as an interface for signals transmitted to and received from the user interface unit based on a PCMCIA standard;

a controller which monitors signals transmitted and received between functional units of the radio modem terminal and controls a plurality of corresponding operations; and

a connector which connects the radio modem terminal to a notebook computer, wherein the connector carries a plurality of signals to and receives a plurality of signals from the notebook computer when connected.

9. The terminal of claim 8, further comprising:
a power supply unit which supplies power to the radio modem terminal if the radio modem terminal is not connected to a notebook computer.
10. The terminal of claim 8, wherein the display unit comprises a liquid crystal display (LCD) with a touch pad attached thereto for receiving information from a user.
11. The terminal of claim 8, wherein the connector comprises a 68 pin connector.
12. The terminal of claim 9, wherein the connector is connected to a switch which varies a connection path between the connector and the power supply unit based on a connection state of the notebook computer.
13. The terminal of claim 12, wherein the connection path comprises:
a signal path which connects the connector and the power supply unit; and
a signal path which provides power input through the connector from an external source directly to a system of the radio modem terminal.
14. The terminal of claim 12, wherein the connector, the power supply unit, and the external power source form a connection path, and the external power source is a

primary source of operating power when the notebook computer is connected to the radio modem terminal.

15. The terminal of claim 12, wherein power supplied by the power supply unit is a primary source of operating power when the notebook computer is not connected to the radio modem terminal.

16. The terminal of claim 8, wherein the notebook computer comprises:
a socket which receives the connector;
a power supply unit which supplies power to at least one system of the notebook computer, and supplies power to the radio modem terminal through the connector; and
a charging unit which charges the power supply unit of the radio modem terminal through the connector.

17. The terminal of claim 16, wherein the power supply unit for the notebook computer and the charging unit are configured to supply power to the radio modem terminal when the radio modem terminal is connected to the notebook computer.

18. A radio modem terminal for mobile communication, comprising:
a main body comprising a PC card; and
a display unit connected to the main body, wherein the main body and the display unit form a mobile communication device.

19. The radio modem terminal of claim 18, further comprising a power supply unit connected to the main body.

20. The radio modem terminal of claim 19, wherein the display unit, main body, and power supply unit are rotatably connected to form a foldable type mobile communication device.

21. The radio modem terminal of claim 20, wherein an end of the power supply unit, an end of the display unit, and an end of the main body are all rotatably connected to one another by a hinge structure.

22. The radio modem terminal of claim 20, wherein the main body further comprises a connector formed at one end of the PC card, wherein the connector is configured to connect the radio modem terminal to a notebook computer.

23. The radio modem terminal of claim 22, wherein an operation mode is determined based on a connection status between the radio modem terminal and the notebook computer.

24. The radio modem terminal of claim 23, wherein the operation mode comprises at least a PC card mode, wherein the radio modem terminal is connected to the

notebook computer, and a mobile communication terminal mode, wherein the radio modem terminal is not connected to the notebook computer.

25. The radio modem terminal of claim 22, wherein the connector is connected to a switch configured to determine a connection path between the connector and the power supply unit based on a connection status between the radio modem terminal and the notebook computer.

26. The radio modem terminal of claim 26, wherein an external power source provides a primary source of operating power to the radio modem terminal via a connection path formed by the connector and the power supply unit when the notebook computer and the radio modem terminal are connected.

27. The radio modem terminal of claim 25, wherein power supplied by the power supply unit provides a primary source of operating power to the radio modem terminal when the notebook computer and the radio modem terminal are not connected.

28. The radio modem terminal of claim 22, wherein the notebook computer comprises:

a socket configured to receive the connector;

a power supply unit for the notebook computer configured to supply power to a plurality of systems of the notebook computer, and to supply power to the radio modem terminal through the connector; and

a charging unit configured to charge the power supply unit of the radio modem terminal through the connector, wherein the power supply unit for the notebook computer and the charging unit are further configured to supply power to the radio modem terminal when the notebook computer and the radio modem terminal are connected.

29. The radio modem terminal of claim 18, wherein the display unit comprises an LCD, wherein the LCD is configured to allow a user to input information.

30. The radio modem terminal of claim 29, wherein the LCD comprises a touch screen.

31. The radio modem terminal of claim 19, wherein the power supply unit is configured to receive and store power supplied by an external power source, and to supply power to the radio modem terminal in the absence of an external power source.

32. The radio modem terminal of claim 18, wherein the PC card comprises:
an RF unit configured to process an RF input signal;
a user interface configured to interface a signal transmitted to and received from the display unit;

a memory unit configured to store operating data;
an audio interface unit configured to process a voice signal; and
a controller configured to monitor a plurality of signals transmitted and received between functional units of the radio modem terminal and to control a plurality of corresponding operations; and wherein

a connector formed at one end of the PC card is configured to connect the radio modem terminal to a notebook computer, wherein the connector is further configured to transmit a plurality of signals to and receive a plurality of signals from the notebook computer when they are connected.